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marketing appalachian apples

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Summary

Quality and relative cost of marketing are two important factors in determining the best market outlet for a particular lot of apples. The range in cost of packing a bushel of apples for labor, overhead, and containers was from a low of $0.65 to a high of $0.96 per bushel for the seven cases analyzed. When storage and selling costs were included, it cost from $0.97 to $1.28 more to market a bushel of apples to the fresh market than to the processor market.

Color is one of the principle differences between the U.S. Standards for fresh and processor grades. When the prices in the fresh and processor markets are known, quality, particularly color, and relative cost of marketing through the two channels, largely determine the outlet to which an individual lot of apples should go in order to net the highest return. For a grower to receive the highest net return for a lot of apples he must know the quality and cost of marketing the apples. The wide range in costs among the seven growers studied points up the need for each grower to know his marketing cost. Also, it indicates that there are opportunities for reducing cost.

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Marketing Appalachian Apples

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Introduction

APPLE crop sales in the Appalachian area are ordinarily divided about equally between the fresh and the processing markets. The quality[1] of the fruit and the relative costs of marketing through the two outlets are important factors in determining the market.

In an effort to determine the relative cost of marketing apples on the fresh and on the processing markets, the records of seven growers in the Appalachian area have been analyzed.

Packing Costs

Data were not kept in sufficient detail to permit breaking down packing cost by type of containers. Most of the apples were packed in baskets and boxes. A very few were packed in consumer packages. Table 1 gives labor and overhead cost of packing reported by the seven cooperators. The number of bushels packed per cooperator ranged from 1,159 to 19,566. Labor costs per bushel ranged from 16 to 25 cents. Overhead cost[2] per bushel ranged from 5 to 35 cents. Total packing costs per bushel ranged from 21 to 52 cents. The average number of bushels packed per cooperator was 10,670, with an average labor cost per bushel of 19 cents, an average overhead cost per bushel of 9 cents, and an average total cost per bushel of 29 cents.

The grower having the highest overhead cost per bushel had the smallest volume of apples. On the other hand, the grower having the lowest overhead costs had the largest volume of apples. Within a given plant the overhead or fixed cost per bushel declines as the volume handled increases.

Container Cost

During the 1951 packing season seven growers had the following average cost for containers: Bushel Basket, 44 cents; Wire Bound Box, 51 cents; Eastern Box, 55 cents; Northwestern Box, 70 cents. Average

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[1]Quality as used in this paper has reference to the attributes of the apples that are commonly measured by the U.S. Standards to determine the grade of the fruit.

[2]Overhead cost includes repairs and depreciation on packing facilities and equipment, light, heat, power, telephone, insurance, taxes, interest, and supervisory labor employed on an annual basis.

APPLES arriving at receiving station of processing plant.

APPLES being packed for the fresh market.

container cost was representative of individual growers cost, as there was little variation among growers. This was not the case with labor and overhead cost. Average container cost includes the cost of paper wraps and shredded paper.

Storage and Selling Costs

It is customary in the Appalachian area for the grower not to incur storage and selling costs when selling to the processor. Data collected in 1951 did not permit analysis relative to storage and selling costs for the fresh market; however, in the 1949-50 season, the average cost per bushel for the Appalachian area was 20 cents.[3] For the same season the average selling cost was 12 cents per bushel.[4]

Although container, packing, storage, and selling costs are customarily incurred by the grower only for apples going to the fresh market, picking and hauling costs are incurred by the grower for apples marketed through both fresh and processor channels. Picking costs would be the same regardless of outlet used. Under the conditions of this study cost data on hauling were not available in sufficient detail to estimate the relative cost of hauling incurred by the grower in marketing apples to the fresh and processor markets. For purposes of this study it may be assumed that hauling costs are the same regardless of market outlet used. It is recognized, however, that the amount of hauling required varies with each individual's operations.

If picking and hauling costs are excluded, it would cost grower E (Table 1) $0.97 per bushel more to market a bushel of apples packed in a basket to the fresh market than to the processor market. Under the same condition it would cost grower G $1.28. In order to make returns from the fresh and processor markets comparable, the additional cost of marketing to the fresh market over processor marketing must be deducted from the fresh price.

The most profitable outlet for one grower may or may not be for another, due to differences in cost. For example, if growers E and G (Table 1) are each able to get $2.50 per bushel in the fresh market and $1.40 per bushel in the processor market for their apples, which outlet should each use? To put the two prices on a comparable basis, grower E should deduct $0.97 ($2.50 − $0.97 = $1.53) and grower G $1.28 ($2.50 − $1.28 = $1.22) from the fresh price. This would give grower E a price advantage of 13 cents on the fresh market and grower G a price advantage of 18 cents on the processor market. If a grower is to receive the highest

[3]Reizenstein, H. H., and H. W. Bitting, *Farm-Retail Margins from Appalachian Apples Marketed in Pittsburgh, 1949-50 Season*. USDA, BAE, Agri. Information Bulletin No. 44, Washington, D.C., April 1, 1951, p. 11.
[4]*Ibid.* p. 11.

net return for a lot of apples, he must know the relative cost of marketing them through the various outlets.

Table 1. Labor and Overhead Cost for Packing Apples of Seven Growers in the Appalachian Area—1951.

Growers	Bushels Packed	Labor Cost Per Bushel	Overhead Cost Per Bushel	Total Costs Per Bushel
		cents	*cents*	*cents*
E	19,566	16	5	21
B	15,818	16	8	24
D	14,622	20	9	29
C	16,891	25	10	35
A	4,509	—	—	42
F	2,124	18	29	47
G	1,159	17	35	52
Average	10,670	19	9	29

Quality

Quality is important in determining how to market a crop of apples. There are two sets of standards for measuring quality and determining grade; they are, "U.S. Standards for Apples for Processing" and "U.S. Standards for Apples" for the fresh market. These standards have different requirements to meet a particular grade. The principle difference between the standards is the consideration given to color by the standards for fresh use.

Tables 2 and 3 give the results from grading two lots of apples by the two sets of standards. The apples referred to in Table 2 were of high quality, with more than 80 per cent of both Yorks and Staymans grading U.S. No. 1 by fresh standards, and more than 85 per cent grading U.S. No. 1 by processing standards.

Table 3 gives the results from grading another lot of apples by both fresh and processing standards. This sample of apples graded 30 per cent U.S. No. 1 by fresh standards and 94 per cent U.S. No. 1 by processor standards. Tables 2 and 3 indicate that more apples from a given lot meet the U.S. No. 1 grade for processing than meet the U.S. No. 1 grade for the fresh market. As the quality, particularly color, of the tree-run apples decreases, the gap between those meeting processing and those meeting fresh standards becomes greater.

Quality of apples affects packing cost and net returns. Cost of packing fresh apples decreases as the percentage of apples grading U.S. No. 1 increases. This is due to the fact that as the percentage of U. S. No. 1 apples in a lot increases, fewer apples must be handled to pack a bushel. In the case of the apples referred to in Table 2 the grower found it to his advantage to sell more than 80 per cent of them to the fresh market, while the apples referred to in Table 3 were all sold to the processor.

Table 2. Record of Inspection of a Sample of York and Stayman Appples by Both U.S. Fresh and Processing Standards, 1951*

Quality	Size	Fresh Standards†		Processing Standards†	
		Yorks	Staymans	Yorks	Staymans
		%	%	%	%
U.S. No. 1	3″ up	24.1	29.1		
U.S. No. 1	2¾″ up			68.6	66.4
U.S. No. 1	2½″-3″		38.0		
U.S. No. 1	2½″-2¾″			13.8	15.5
U.S. No. 1	2¼″-3″	56.4			
U.S. No. 1	2¼″-2½″		17.9	3.5	6.1
Below U.S. No. 1		19.5	15.0	14.1	12.0

*From unpublished data of the Agricultural Marketing Service, U.S.D.A.

†A sample of 9,885,420 pounds of Yorks and a sample of 7,101,860 pounds of Staymans grown by three growers in Maryland were graded by both Fresh and Processor Standards by Federal-State graders.

Table 3. Record of Inspection of 176 Truck Loads of Apples by Both U.S. Fresh and Processing Standards in Appalachian Area in 1952.*

Quality	Size	Fresh Standards	Processing Standards
		%	%
U.S. No. 1	2¾″ up	16.2	51.2
U.S. No. 1	2½″-2¾″	8.6	25.7
U.S. No. 1	2¼″-2½″	5.5	17.0
Below U.S. No. 1		69.7	6.1

*From unpublished data of the Agricultural Marketing Service, U.S.D.A.

Although there are many factors other than quality and cost of marketing that help determine through which outlet a particular lot of apples should be sold, these two are more under the control of the grower than some of the others such as price and risk. The limited data presented here should not be interpreted as representing average cost for the area; however, it does point out the wide variation in cost among the seven growers, which indicates the importance of each grower knowing his cost of packing apples for the fresh market. Also, the wide variation in costs indicates that there are opportunities for reducing cost by some growers.